

Reliant Energy New Jersey Holding, LLC Comments to NJDEP's
Workgroup Recommendations and Other Potential Control Measures
Stationary Combustion Sources Workgroup
SCS003 – ICI Boilers

Background

New Jersey Department of Environmental Protection - Division of Air Permitting (NJDEP) is considering proposing major changes to NO_x and SO₂ emission requirements. One of these strategies specifically addresses ICI Boilers. The proposed recommendations provide for the revision of Subchapter 19 NO_x emission limits for boilers 10 – 250 MM Btu/ Hr for natural gas and distillate oil. The recommendations also provide for the revision of Subchapter 19 sulfur limit for distillate oil from 0.2% sulfur by weight in two phases, first to 0.05% sulfur by weight, second to 15 ppm for the entire state of New Jersey.

Candidate Measure 1: Lower NO_x emission limits on small to medium size boilers to reflect 50% reduction in emissions by the installation of Low NO_x Burners.

Candidate measure 2: Use of Ultra Low Sulfur Fuel (15ppm).

Reliant Energy New Jersey Holding, LLC (Reliant Energy) owns and operates 21 simple cycle combustion turbines and one “4 on 1” combined cycle unit in the State of New Jersey with a total output of 1134 megawatts. These units, which are located in northern New Jersey, are fueled by either pipeline natural gas and/or No. 2 fuel oil, and are considered “peaking units”. At some of these sites, Reliant Energy also has installed non-utility boilers (ICI boilers) that are used for miscellaneous heating. These boilers are fired by either pipeline natural gas and/or No. 2 fuel oil and have a heat input rating from 17 to 44 MM Btu/Hr. These boilers are used solely for space heating purposes. As a result, they only operate during the winter heating season.

Reliant Energy is concerned about the costs of the installation of NO_x control measures. Current estimates show Low NO_x Burner costs in the neighborhood of \$20,000 to \$30,000 per burner. Installation costs range from \$30,000 to \$50,000 per burner. Installation costs could be higher, depending on the extent of the physical changes needed to accommodate the Low NO_x Burner Technology to the boiler's existing configuration. Based on 2005 actual emissions data, control costs for NO_x removal using Low NO_x Burners for the Reliant Energy ICI Boilers range from \$10,763/ton to \$47,253/ton.

The costs for procuring Ultra Low Sulfur Fuel (15 ppm) beginning in 2014 are not known at this time due to the current dynamics of state fuel quality regulatory requirements for distillate oil for each source category and future refinery production uncertainties.

Recommendations

Candidate Measure 1

Reliant Energy asserts that there are several measures that could make the ICI Boilers regulatory proposals much more effective. First, ICI boilers below 50 MM Btu/hr heat input should not be

affected, rather than the current 10 MM Btu/hr threshold. Second, boilers that operate less than 3% of the time should not be affected, as controlling such sources would provide reductions of dubious value for a very high cost. Last, operators should have the option to be exempt from this rule by not operating during the Ozone Season.

Candidate Measure 2

Reliant Energy reserves comment on the Candidate Control Measure 2 based on current uncertainties. Reliant Energy believes that there needs to be concerted, coordinated efforts between the regulatory agencies, the product end users, and importantly, fuel producers and refineries to craft reasonable requirements in the effort to meet NJDEP's SO reduction goals and objectives.

We would be happy to meet with NJDEP to discuss these concepts in further detail.